

Recovery Plan Action Status

Plan Name: Recovery Plan (Palma de Manaca) *Calyptronoma rivalis*

Plan Status: Final

Plan Date: 25-Jun-92

Lead Agency: USFWS

Lead Office: Caribbean Ecological Services Field Office

(787)

851-7297)

| Species | Action Priority # | Action # | Action Description | Action Status | Est. Initiation Date | Est. Completion Date | Responsible Parties | Work Type | Labor Type | Action Comments |
|--|-------------------|----------|--|-----------------|----------------------|----------------------|--|----------------------------------|--|---|
| Palma de manaca (<i>Calyptronoma rivalis</i>) | 1 | 111 | Obtain protective status for the privately- owned sites | Ongoing Current | FY 2009 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources, USFWS Regional Office 4 | Acquisition: Other, Other | Internal Field Assistance | Should be done through conservation easements |
| Palma de manaca (<i>Calyptronoma rivalis</i>) | 2 | 112 | Incorporate protection measures for this species in the Rio Abajo Forest Management Plan | Ongoing Current | FY 2006 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources, USFWS Regional Office 4 | Management: Other | Internal Field Assistance, Internal Technical Assistance | no cost anticipated |
| Palma de manaca (<i>Calyptronoma rivalis</i>) | 1 | 121 | Monitor known populations | Ongoing Current | Prior to FY 1995 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources | Research: Population Surveys | Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance | |
| Palma de manaca (<i>Calyptronoma rivalis</i>) | 1 | 122 | Enforce existing Commonwealth endangered species regulations | Ongoing Current | Prior to FY 1995 | FY 2011 | U.S. Fish and Wildlife Service, Law Enforcement Division, U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources | Other: Law Enforcement | Internal Administrative | |
| Palma de manaca (<i>Calyptronoma rivalis</i>) | 1 | 123 | Educate public on plant conservation values and regulations | Ongoing Current | Prior to FY 1995 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources | Other: Information and Education | Internal Administrative | Species is included in environmental education programs |

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| Palma de manaca (Calyptronoma rivalis) | 2 | 211 | Identify and inventory potential sites | Ongoing Current | FY 2008 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Research: Population Surveys | Contract, Graduate Student | Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 212 | Characterize sites to determine suitability as future recovery sites | Ongoing Current | FY 2008 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Research: Management Techniques | Contract, Graduate Student | Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 31 | Define habitat requirements | Not Started | | | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources, USFWS Regional Office 4 | Research: Habitat Requirements | Graduate Student | Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 321 | Assess periodicity of flowering and pollination mechanisms | Not Started | | | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Research: General | Contract, Graduate Student | 12k/yr includes 321, 322, 323 and 324. Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 322 | Assess seed production and dispersal | Not Started | | | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Research: General | Contract, Graduate Student | Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 323 | Evaluate seed viability and germination requirements | Ongoing Current | Prior to FY 1995 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Research: General | Contract, Graduate Student | Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 324 | Evaluate requirements for seedling establishment and growth | Not Started | | | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Research: Demographic Studies | Graduate Student | Task Duration 2-4 years |

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| Palma de manaca (Calyptronoma rivalis) | 1 | 33 | Develop artificial propagation program | Ongoing Current | Prior to FY 1995 | FY 2011 | Botanical Gardens, U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Management: Propagation | Internal Administrative, Internal Field Assistance | |
| Palma de manaca (Calyptronoma rivalis) | 2 | 411 | Select sites and assess habitat suitability | Ongoing Current | FY 2008 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Universities, Puerto Rico Department of Natural Resources | Research: Habitat Requirements | Graduate Student | Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 412 | Assure site protection | Ongoing Current | FY 2008 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources | Acquisition: Other, Management: General | Internal Field Assistance | Task Duration 2-4 years |
| Palma de manaca (Calyptronoma rivalis) | 2 | 413 | Introduction of plants | Ongoing Current | FY 2008 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources | Management: Reintroduction | Internal Field Assistance, Internal Technical Assistance | |
| Palma de manaca (Calyptronoma rivalis) | 2 | 51 | Determine number of individuals and populations to ensure self-perpetuation | Not Started | | | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources, USFWS Regional Office 4 | Research: General | Internal Field Assistance | |
| Palma de manaca (Calyptronoma rivalis) | 2 | 52 | Determine what additional actions are needed to achieve recovery objectives | Ongoing Current | FY 2010 | FY 2011 | U.S. Fish and Wildlife Service, Endangered Species Division, Puerto Rico Department of Natural Resources | Research: General | Graduate Student, Internal Field Assistance | |